Foreword ISO 14040

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## Angela Merkel

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In the course of the development of international standards, ISO/DIS 14040 has become International Standard in June 1997.

ISO 14040 outlines the worldwide "Environmental Management – Life Cycle Assessment – Principles and Framework" and is a tool for international communication and the establishment of Life Cycle Assessments.

Furthermore, this development includes such practical demands which are already seen to be important such as, for example, the participation of interested groups. Finally, it will provide important signals for both governmental and non-governmental organizations which include comprehensive, life-cycle oriented decisions for reducing pollutants stemming from industrial products.

These strategies for the products are a central component of the mandatory structural alterations directed for a long-term, environment-justified development as demanded in Chapter 4 of the Agenda 21 of the UN committee for environmental developments (UNCED).

The instrument of Life Cycle Assessment can thereby provide important information for making decisions. From the viewpoint of integrated environmental protection, attempts must be made to undertake transparent and comprehensible evaluations in order to solve environmental problems and/ or to develop methods for optimizing the systems over the whole life cycle. In terms of environmental protection, this should initially be performed without the explicit consideration of economical or other political factors.

There is no doubt that the result of an ecological balancing is only one building block in the course of – political and legally legitimate – decision-making processes of the Federal State, the economy and associations which must subsequently be weighted with the economical and social factors, and ultimately with the political goals.

With this in mind, Life Cycle Assessments should achieve the following:

- An evaluation of the ecological preferences of competitive products (e.g. one-way versus multiple-use packaging, rapeseed oil and diesel fuels, or wood-free and recycling papers),
- evaluation of the ecological preference of product components (e.g. of surfactants based on coconut oil or fossil fuels).
- the evaluation of the ecological preference of processes or methods (e.g. of such options involving material or raw material recycling and the thermal recycling of such specific products as PVC or synthetic packaging materials),

- the evaluation of ecological preferences in the services (e.g. in transport or energy systems).

In order to accelerate the progress in the most controversial field of Life Cycle Assessment, namely the valuation or weighting, research is to be carried out for the development of the valuation criteria involved with Life Cycle Assessment. The necessity for such a valuation step is generally known for comparative Life Cycle Assessments, even for interested organizations who carry out such valuations in the course of making decisions for ecological product optimization, e.g. with regard to competitive types of materials or packaging. Uncertainty, however, continues to exist with regard to the contents and the procedural relationships of performing these valuation steps.

For this reason, a project group has been created in the course of the research project which I have forwarded. This project group is made up of representatives from all of the social fields involved. In close relationship with the working committee on "Ecological Balancing" of the NAGUS\*, the goal of this work is to form an agreement on valuation criteria which supports both the national and the international work.

Considering the background of a worldwide economical network and the growth of international trade, especially this European and international standardization work plays a very important role. If the setting of this course takes place too late, situations may easily develop whereby the results must apply to the entire nation, irregardless of whether or not this is desired.

For our united interest, it is therefore mandatory to integrate the viewpoints of environmental protection as early as possible, i.e. this should occur systematically and thoroughly already while working out the product norms. The development of the working group on "Environmental Aspects in Product Standards – ENAPS" of the CEN/PC 7 is also the first important step in starting a coordinated European site for environmental protection.

In this three-year test phase of the European standardization project, the working group should examine whether or not the environmental aspects are carried out with regard to the ISO Guide 64 "Guidelines Concerning the Environmental Aspects of Product Norms". In the course of this ISO Guideline, the entire lifetime of a product is considered for product standardization – from the production of raw materials to its disposal – in this way, in order to reduce the possible effects on the environment. This is of substantial importance in the sense of long-term environmental protection.

<sup>\*</sup> NAGUS: Normenausschuß "Grundlagen des Umweltschutzes"